

D
Sor 3
E 3

21. (four times amended) A continuous gas phase process for polymerizing ethylene and one or more alpha-olefin(s) comonomer in a fluidized bed gas phase reactor in the presence of a catalyst system to produce a polymer product, the catalyst system comprising a ligand hafnium metallocene catalyst compound having at least one ligand substituted with at least one linear or iso alkyl group having from 3 to 10 carbon atoms, and the polymer product comprising less than 2 ppm hafnium.

D
Sor 3
E 3

26. (once amended) The process in accordance with claim 21 wherein the [olefin(s) are ethylene and at lest] one or more alpha-olefin(s) comonomer [having] contains 3 to 8 carbon atoms.

D
Sor 3
E 3

28. (four times amended) A continuous slurry phase process for polymerizing ethylene and one or more alpha-olefin(s) comonomer in the presence of a catalyst system to produce a polymer product in a liquid polymerization medium, the catalyst system comprising a hafnium metallocene catalyst compound having at least one substituted with at least one linear or iso alkyl group having from 3 to 10 carbon atoms, and the polymer product comprising less than 2 ppm hafnium.

D
Sor 3
E 3

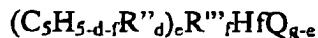
31. (once amended) The process in accordance with claim 28 wherein the [olefins are ethylene and at lest] one or more alpha-olefin(s) comonomer [having] contains 3 to 8 carbon atoms.

D
Sor 3
E 3

52. (twice amended) A process for polymerizing ethylene and one or more alpha-olefin(s) comonomer in the presence of a catalyst system comprising a hafnium transition metal metallocene catalyst having at least one cyclopentadienyl ring substituted with at least one alkyl group selected from group consisting of n-propyl, isopropyl, isobutyl and n-pentyl, and an activator.

D
Sor 3
E 3

53. (once amended) A continuous gas phase process for polymerizing ethylene and one or more alpha-olefin(s) comonomer in a fluidized bed gas phase reactor in the presence of a catalyst system to produce a polymer product, the catalyst system comprising a bulky ligand hafnium transition metal metallocene catalyst represented by the formula:



D
Sor 3
E 3

wherein $(C_5H_{5-d},R'')_e$ is an unsubstituted or substituted cyclopentadienyl ligand bonded to Hf, wherein at least one $(C_5H_{5-d},R'')_e$ is substituted with at least one R'' which is an alkyl group selected from the group consisting of n-propyl, isopropyl, isobutyl and n-pentyl, each additional R'', which can be the same or different is hydrogen or a substituted or unsubstituted hydrocarbyl having from 1 to 30 carbon atoms or combinations thereof or two or more carbon atoms are joined together to form a part of a substituted or unsubstituted ring or ring system having 4 to 30 carbon atoms, R''' is one or more or a combination of the group consisting of carbon, germanium, silicon, phosphorous and nitrogen atoms containing radical bridging two $(C_5H_{5-d},R'')_e$ rings, or bridging one $(C_5H_{5-d},R'')_e$ ring to Hf; each Q which can be the same or different is selected from the group consisting of hydride, substituted and unsubstituted hydrocarbyl having from 1 to 30 carbon atoms, halogen, alkoxides, aryloxides, amides,